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Government Spending or Tax Reduction: Which Might Add More Stimulus to the Economy?

Updated December 9, 2008

Congressional Research Service
https://crsreports.congress.gov
RS21136

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

Some policymakers have called for another "stimulus" package to boost economic activity in response to the recession that began in December 2007. A fundamental difference between stimulus proposals is how much of the stimulus should be composed of government spending and how much should be composed of tax cuts. This report considers that issue in the context of conventional economic analysis. It first identifies any policy measure that increases the budget deficit (or reduces a surplus) and is not entirely saved by the recipient as "stimulative" if the economy is operating below its full potential. It then separates the short-run effects of a budget deficit from the long-run effects. In this context, certain spending measures would be more stimulative than certain tax reductions in the short run because they result in a bigger boost in aggregate spending. This advantage may come at the cost of forgone growth in the long run, however. This report will be updated as events warrant.

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Some policymakers have suggested that a stimulus package might be needed to boost the economy that has been in a recession since December 2007. Congress approved a stimulus package in February 2008 (P.L. 110-185), and is now considering another one.[1] If so, a key question in designing a stimulus package is how to get the most short-term "bang for the buck," and one important element of that debate is whether spending proposals or tax reductions would be more effective in that regard. To answer that question, one must first distinguish between the demand-side (aggregate spending) and supply-side (aggregate production) of the economy. Stimulating the economy refers to boosting aggregate spending on the demand-side of the economy. Stimulus is employed in a recession because a recession, by definition, is a situation where aggregate spending is insufficient to fully employ the economy's resources.

How should the efficacy of a proposed stimulus be evaluated? By whether it boosts economic growth might seem to be an obvious answer, but a complete answer is a little more complicated. Most proposed policy measures have distinct short-run and long-run economic effects, and often a policy measure that is beneficial in the short run may be detrimental in the long run, and vice versa.[2] In the short run, many policy measures would affect the economy by boosting aggregate spending; in a slowdown, their effects on the productive capacity ("supply side") of the economy are likely to be slight—there is little incentive to add capital or labor when spending is not adequate to support existing production. In the long run, some proposed policy measures can affect economic growth by changing individuals' work effort, productivity, and the national saving rate. By contrast, a measure's effect on aggregate spending can be ignored in the long run because aggregate spending cannot be permanently altered; once prices, wages, and credit markets adjust, aggregate spending effects are dissipated. If judging a measure whose aim is to stimulate the economy in response to an economic shock, it seems logical to judge it on the basis of how much it boosts aggregate spending in the short run. This does not alter the fact that, for better or worse, it will also have long-run effects.

Evaluating the stimulative nature of different policy measures does not answer the question of whether fiscal stimulus is needed. Expansionary monetary policy by the Federal Reserve (Fed) also stimulates the economy.[3] In recent months, the Fed has reduced the federal funds rate on several occasions. In addition, prices, wages, and credit markets naturally adjust to bring aggregate spending back into line with aggregate production. A look at the historical record suggests that these two factors have proven highly capable of moving the economy out of recession in the absence of a fiscal stimulus.[4]

Short-Run Effects

As a first approximation, any policy measure—whether it be a tax or spending measure—that increases the size of the budget deficit (or decreases the size of a surplus) would be expected to boost aggregate spending by some degree, thereby stimulating an economy operating below its full potential.[5] The key is that stimulus measures would be financed with borrowed money, and

[1] For an overview of economic conditions and Congressional action on the stimulus packages, see CRS Report RL34349, *Economic Slowdown: Issues and Policies*, by Jane G. Gravelle et al.

[2] For the purposes of this report, short-term effects can be defined as the cyclical effects of a policy change, and long-term effects can be thought of as the economic effects after the cyclical effects have passed.

[3] For more information, see CRS Report RL30354, *Monetary Policy and the Federal Reserve: Current Policy and Conditions*, by Gail E. Makinen and Marc Labonte.

[4] For an evaluation of the relative merits of fiscal and monetary policy, see CRS Report RL34072, *Economic Growth and the Business Cycle: Characteristics, Causes, and Policy Implications*, by Marc Labonte.

[5] For a more detailed analysis, see CRS Report RL31235, *The Economics of the Federal Budget Deficit*, by Brian W. Cashell.

credit markets would not fully adjust immediately in terms of higher interest rates, so that the spending is "new." In that context, if the measure were offset by spending cuts in other parts of the budget or other tax increases, it would largely lose its stimulative effect on aggregate demand. Implementation of proposals labeled as a "stimulus package" or, say, "higher military spending" would both stimulate aggregate spending; the most important determinant of a measure's effect is how much the budget deficit increases as a percentage of gross domestic product (GDP). Because the policy brings unused resources back into production, the increase in aggregate spending will be greater than the budgetary cost of the measure by some "multiplier." To the extent that interest rates rise as a result of the decline in saving (increased budget deficit), the multiplier will be reduced because the measure will tend to "crowd out" private investment and other interest-sensitive spending. Economic theory suggests it will also crowd out exports and import-competing goods because higher interest rates will tend to attract foreign capital that will cause the exchange value of the dollar to appreciate. Similarly, if the measure causes inflation to rise, some of the spending will be crowded out as real income falls. More crowding out will occur as production moves closer to its full potential. When the economy is operating at close to full capacity, then a stimulus package is unlikely to have the salutary effects its proponents desire. When the economy is deep in a recession and business investment demand is weak, the crowding out effect is likely to be small.

All measures that increase the size of the deficit will boost aggregate spending in a recession to some extent, but some measures are likely to boost it more than others. The government can increase the budget deficit (or reduce the surplus) in three ways: it can spend money directly by purchasing goods and services, it can make income transfers by giving cash or in-kind benefits to selected individuals, or it can cut taxes. (Note that while in budgetary terms government spending and government transfers are both defined as outlays, they have different economic meanings and effects.) Government spending is likely to boost aggregate spending more than tax cuts or a government transfer because some part of a tax cut or transfer would be saved. By definition, any resources that are saved cannot add to aggregate spending. Similarly, different tax cuts and transfers will have different short-run effects because they offer different incentives to save or spend and their recipients have different spending/saving patterns.

Who should a tax cut or government transfer target to get the most short-run "bang for the buck"? Empirically, there is evidence that lower income recipients are likely to spend more of a tax cut or transfer payment than higher income recipients. For example, two-thirds of families in the bottom 20% of the income distribution did not save at all in 2004, whereas only one-fifth of families in the top 10% of the income distribution did not save.[6] There is no strong theoretical rationale to explain this result. One fairly well-accepted theoretical explanation holds that lower income recipients are more likely to be "liquidity-constrained" than higher income recipients, meaning that they are more likely to lack access to credit markets that allows them to alter their borrowing or saving at will. Thus, spending a tax cut or transfer payment may allow them to reach a level of consumption that they would have undertaken if they had unrestrained access to credit markets.

If the economic effects of both transfer payments and tax cuts depend on the recipient's behavioral response, is there any reason to generally expect one or the other to cause a greater boost in aggregate demand? To answer this question, two further points are worth considering. First, about 30% of low-income households accrue no federal income tax liability, although some do pay federal payroll and excise taxes. Thus, there are limited options for targeting lower income recipients through the individual income tax. Second, it would be difficult to target an individual

[6] Brian Bucks et al, "Recent Changes in U.S. Family Finances: Evidence from the 2001 and 2004 Survey of Consumer Finances," *Federal Reserve Bulletin*, vol. 92, February 2006, pp. A1-A38.

tax cut in such a way that it could only be spent.[7] The recipients of tax rebates, income tax cuts, or payroll tax holidays would be free to decide whether to save or spend their payment. (A sales tax holiday is a notable exception, but raises problematic administrative and federalism issues since sales taxes are levied by state governments.) By contrast, there are other types of tax cuts such as the expansion of tax deferred savings accounts that are intended to stimulate more *saving*, and hence less spending. Certain types of transfer payments, such as food stamps or rental vouchers, are more easily targeted in such a way that they *cannot* be saved, and must be spent. Even these policies do not prevent individuals from shifting an offsetting amount of any other income into saving, however. Thus, government spending on goods and services remains the only way to prevent the short-term increase in aggregate spending from being partially offset by private saving.

In determining a measure's short-run efficacy, another issue to consider is the lag in policy implementation (a separate issue from the lag caused by the legislative process). It may take a considerable amount of time to set up an administrative infrastructure before certain government spending or transfer measures can be implemented. Alternatively, other measures expand existing programs and, in some cases, can be implemented quite quickly. For example, revenue sharing between federal and state governments (sending fiscal aid to states) could presumably be spent quickly by the states since it would most likely be used to finance existing state programs whose budgets would otherwise be cut. Tax cuts typically take effect in the following fiscal year, but exceptions can be made, as was the case with the 2008 tax "rebate." The rebate still entailed a lag: P.L. 110-185 was signed into law in February, but most rebates went out in May and June 2008.[8]

Long-Run Effects

Policy measures that stimulate the economy in the short run, in terms of boosting aggregate spending, may lower economic performance in the long run due to the spending-saving dichotomy. Long-run growth depends on investment, work effort, and productivity gains. Investment, in turn, relies on saving. Since a budget deficit lowers national saving (while a surplus increases national saving), a policy measure that increases the budget deficit would lower national saving unless it leads to higher saving in other sectors of the economy. *If so, measures that boost aggregate spending in the short run will lower saving, and therefore may restrain growth over the long run*. The extent that national saving is reduced, in turn, depends on how much private saving offsets the reduction in public saving (the increase in the deficit).

The fact that some part of a tax cut is likely to be saved arguably gives tax cuts an advantage over most government spending in the long run. In turn, a tax cut can be crafted to generate more saving by targeting higher income individuals (who have higher saving rates) or targeting saving directly (e.g., expanding tax-deferred saving accounts). Whether tax cuts actually induce private saving depends on whether individuals react to the higher after-tax rate of return by saving more because it is more rewarding (referred to as a substitution effect) or by saving less because less saving is now needed to reach their goal (referred to as an income effect). Similarly, tax cuts can be crafted to increase the rewards for working. Whether this generates more work effort depends on whether people work more in response to higher after-tax pay (substitution effect), or work less because less work is now needed to achieve a given standard of living (income effect). If a tax cut generates more work effort, this could also help offset the negative effects on economic

[7] It is easier to target a business tax cut in such a way that it must be spent. For instance, a business could claim the proposed accelerated depreciation only if it purchased new capital. See CRS Report RL31134, *Using Business Tax Cuts to Stimulate the Economy*, by Jane G. Gravelle.

[8] See CRS Report RL34349, *Economic Slowdown: Issues and Policies*, by Jane G. Gravelle et al.

growth of raising the deficit. Marginal income tax cuts have substitution effects that could potentially induce more work or saving; if tax expenditures (deductions, credits, or exclusions) were cut instead, there would be an unambiguously negative effect on work and saving in most cases because there would be an income effect but no substitution effect.

Most government spending and transfers do not increase the incentives for individuals to work or save. Any negative effects on long-run growth caused by the larger budget deficit, therefore, would not be offset. There are exceptions, such as government spending on public investment. While most government consumption or transfer spending would not be expected to affect economic growth, public investment would increase the national capital stock, and therefore have a positive offsetting effect on growth. Productivity in government may grow more slowly than it does in the private sector over time, also causing government spending to detract from long-run growth.[9]

Although transfer payments may have significant social value, they can also reduce the incentives to work and save if they are means-tested for income level. A reduction in transfer payments when income rises is equivalent to the incentive effects of a marginal income tax increase, and some individuals may reduce their work effort or saving to avoid this *de facto* marginal tax increase. Likewise, unemployment benefits can lower the incentive to find work. On the other hand, there are examples of transfer payments that increase the incentive to work, such as transfer payments for which only employed individuals are eligible.

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[9] For a discussion of whether government spending can affect how efficiently resources are allocated in the economy, see CRS Report RL32162, *The Size and Role of Government: Economic Issues*, by Marc Labonte.